

JOINT REPLY OF SBC LECs
JANUARY 11, 1998 RESPONSE
TO FCC DECEMBER 22, 1998 DRAFT REPORT
CONTINUING PROPERTY AUDIT OF
CENTRAL OFFICE HARDWIRE EQUIPMENT

Attachment A

Revisions by Team

Audit Team

Frequency Percent	# Items unrevised	# Items revised	Total
	482 95.63	22 4.37	504
	222 88.10	30 11.90	252
	342 86.58	53 13.42	395
	97 89.81	11 10.19	108
	118 54.63	98 45.37	216
	130 90.28	14 9.72	144
	68 94.44	4 5.56	72
	250 86.81	38 13.19	288
	199 91.71	18 8.29	217
	107 99.07	1 0.93	108
Total Percent	2015 87.46	289 12.54	2304



ATTACHMENT B

■ 1225 Connecticut Avenue, N.W. ■ Phone: 202-327-6000
Washington, D.C. 20036

January 8, 1999

**JOINT REPLY OF SBC LECs
JANUARY 11, 1998 RESPONSE
TO FCC DECEMBER 22, 1998 DRAFT REPORT
CONTINUING PROPERTY AUDIT OF
CENTRAL OFFICE HARDWARE EQUIPMENT**

B. Jeannie Fry
Director, Federal Regulatory
SBC Telecommunications Inc.
1401 I Street, NW, Suite 1100
Washington, DC 20005

Re: Federal Communications Commission Audit Reports of Continuing Property Records as
of June 30, 1997

Dear Jeannie:

Ernst & Young LLP has been retained by Southwestern Bell Telephone Company, Pacific Bell and Nevada Bell (the "SBC BOCs") to conduct a statistical review of the above-referenced draft audit reports on their behalf.

We have extensive sampling background from our many years of experience in government (e.g., IRS) and elsewhere – most recently at Ernst & Young. Our role has been (and is here) not to take an advocacy position but to make sure that the statistical methods in obtaining and using the data are appropriate for the task at hand.

With this intent in mind, we have directed E&Y staff in analyzing the methods used by the FCC in its continuing property record audits. We find their methodology lacking in a number of respects. The FCC's results, in consequence, do not necessarily present a fair representation of the SBC BOC's "missing" investment.

Specifically, the initial (frequentist-based) methodology used by the FCC is deficient in at least the following four ways: a two-way audit was not undertaken, an inappropriate sample design was chosen for estimating dollar values, the margin of error calculations were incorrect; and there were many sources of bias that affected the estimates. Additionally, two other observations might be made: First, the FCC did a second (Bayesian-based) analysis which in our view, did not resolve our concerns about their frequentist approach. Second, hypothetical arguments are made about the problem's duration without evidential support given.

Lack of A Two-Way Audit. The failure to attempt any investigation of whether there was equipment that was not identifiable in the property records precludes any claim that property is "missing." The only way to determine "missing" equipment would be to take the results of the initial audit and net them against the results of an audit that began with a sample of property and tried to find the property on the CPR. The failure to conduct such a "reverse audit" means that any quantification of "missing" investment systematically overstates the actual value of any missing property and cannot be relied on.

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Inappropriate Choice of Sample Design. The FCC sample design was intended to measure the *proportion of items* not found. It was not intended to measure the *dollar value* of missing items. Had the intent been to make such an inference, the sample should have been designed differently. The audit reports' effort to make the jump to a dollar error estimate with the small sample of central office locations actually visited is highly questionable and subject to significant potential uncertainty.

Incorrect Calculation of Margin of Error. The margins of error for missing property investment suggested in the audit reports are very imprecise. Moreover, the margins of error were calculated using methods that require a larger sample size than the one employed in the audit. When corrected, the margins of error are so wide that the results provide little or no useful information concerning the dollar value of property not found. "Actionable" conclusions concerning statements about dollar amounts of investment should not be made from such results.

Related to the margin of error issue is the FCC's understanding and use of confidence intervals. The draft reports mention that the true value of understated investment is "most likely" centered around the midpoint of the confidence interval. This statement is just plain wrong. Confidence intervals give a measure of the precision of the estimate, but no value contained within the interval is necessarily "better" than any other. In a sense, values within an interval are statistically indistinguishable.

If the FCC's intention is to act on problems in SBC's continuing property records, then the long-established approach used by the IRS would be more appropriate. The IRS approach employs a one-sided 95% lower confidence bound as the value assessed. To be conservative in the current setting, especially given errors that cannot be quantified, a 99% percent lower bound level might be used. Such an approach by the FCC would more nearly respect the uncertainty of their results. In other words, as far as the FCC estimates of dollar values are concerned, use of the lower bound of the proper confidence interval would be the prudent approach. The margin of error is so wide that the one-sided 99% percent lower bound of the "net found" in-place cost is likely to be much closer to zero than the FCC's lower bound.

Other Error Sources. The methods identified in the audit reports contain biases which create inaccuracies and further undermine any reliance on the results. These biases include both biases in the statistical calculation and in the audit methodology. For example, there is the potential bias caused by substituting (for convenience) CLLI and line-items for undesirable ones that turned up in the sample, the potential biases induced by not making sure that audit teams were trained to score audit items in a consistent way across all sites, and the possible

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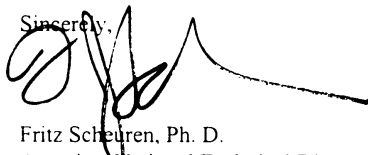
bias introduced via "back office" scoring changes with no attempt made for second visits (to see if the changes were appropriate).

Bayesian Reanalysis. In the Bayesian reanalysis undertaken by the FCC, claims are made that the four concerns we found (see above) in their original frequentist-based analysis do not apply. Their claim that the Bayesian analysis corroborates their initial results is, however, without foundation. No information regarding important aspects of the Bayesian analysis is given in the FCC's draft report. None of the claims made concerning how Bayesian methodology eliminates bias and other problems in the initial analysis are justified. And final results are given without any discussion of how they were derived. Thus, an unsubstantiated Bayesian analysis, using data containing biases, is being used to corroborate the staff's flawed initial analysis.

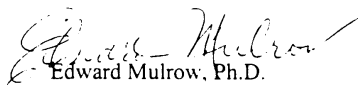
Problem Duration. A further concern with the draft report is the staff's claim that the problem of having "missing" property on the books is longstanding, and has been occurring at a uniform rate over the years. Where is the evidence here? All we are given is a hypothetical argument. The staff had access to the CPR database and should have used the information contained in it to back up any hypothesis that they have concerning the state of the CPR over time. Without this more rigorous approach, their conclusion concerning the duration of the problem is just guess work.

In our professional opinion, we must conclude that the estimates in the FCC's draft audit reports contain biases and are inaccurate. Given these errors and biases, the amounts reported by the FCC as overstated investment are unsound and cannot be fairly relied upon.

Sincerely,



Fritz Scheuren, Ph. D.
Associate National Technical Director for Statistical Sampling



Edward Mulrow, Ph.D.
Associate Chief Mathematical Statistician

Attachment C

COE Records

The Audit Reports claim that accurate account balances are important to policymakers who use them in various situations, such as cost allocation, separations, depreciation rates, prices, low-end adjustments, productivity factors, universal service and interconnection calculations and access charges. On the contrary, account balances no longer play a significant role in the regulation of price cap carriers.

Accurate plant account balances are not important to policy makers in any of the situations identified in the Audit Report:

- Evaluate financial results, nonregulated cost allocations, and jurisdictional separations—The magnitude of the COE plant that is not found and the undetailed plant is much smaller than indicated by the audit report as explained in section II and III of the SBC response. To the extent that unretired plant still remains on the books, this situation as explained in section III of this response has been or is in the process of being corrected through a retirement/inventory plan. Much of this has to date already been retired. Additionally, normal retirements of plant based on Part 32 accounting have no impact on net plant since the same amount is removed from both the plant account and the associated accumulated depreciation.
- Depreciation rates – SBC agrees that to the extent that certain items of equipment have not been retired over the years, then the retirement data utilized in past three-way meetings would have been slightly understated. This may have caused a minor understatement of past depreciation rates. (Retirements serve to decrease the depreciation reserve ratio and consequently increase depreciation rates.) Additionally, since the FCC has placed significant importance on historical retirement data in past 3 way meeting conclusions, more retirements would have served to justify shorter asset lives producing higher depreciation rates. Delayed retirements, then, may have had the effect of modestly lowering depreciation rates.
- Initial prices – New product pricing for access services is determined on forward looking costs and, as such, the incidence of additional COE retirements would not have a bearing on new product pricing.

ATTACHMENT C

- Low end adjustments – SBC has never made use of the low end adjustment and the probability of doing so is highly unlikely. Additionally, Section III of the response has described that SBC is aggressively completing an inventory of COE hardware plant and is retiring and detailing plant as a part of that process. In the unlikely event that SBC would in the future file a low end adjustment, the COE hardware balances would have been corrected prior to that for the minor problems highlighted in Section III.
- Productivity factors - SBC has modeled the productivity factor calculations utilizing the FCC model inputting higher retirement levels uniformly in past years and no discernible change in the resulting productivity factor results.
- Input for Universal Service calculations and interconnection agreements– Booked net investment figures are not relevant in determining forward looking costs and as such there is no impact of COE plant retirements on universal service cost or interconnection cost reporting.
- Access charges – The FCC sets access prices using price cap formulae which are not affected by the level of investment.

ATTACHMENT D



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January 11, 1999

B. Jeannie Fry
Director, Federal Regulatory
SBC Telecommunications Inc.
1401 I Street, NW, Suite 1100
Washington, DC 20005

Dear Ms. Fry:

We have read the Federal Communications Commission ("FCC") Accounting Safeguards Division December 22, 1998 audit reports, Audit of the Continuing Property Records as of June 30, 1997 of the Pacific Bell and Nevada Bell Telephone Companies ("Pacific Report") and Southwestern Bell Telephone Company ("SWBT Report"). Paragraph 41 of the Pacific Report and paragraph 42 of the SWBT Report recommend that Pacific write off \$526.8 million and SWBT write off \$1,145 million from their central office equipment accounts based on statistical inferences drawn from the audit.

By separate letter dated January 8, 1999, Ernst & Young has provided you with our evaluation of the audits and the statistical inferences drawn in the Pacific and SWBT Reports. Our evaluation finds that the methodology used by the FCC is deficient in at least the following four ways: a two-way audit was not undertaken, an inappropriate sample design was chosen for estimating dollar values, the margin of error calculations were incorrect; and there were many sources of bias that affected the estimates. The evaluation concludes that the estimates in the FCC's draft audit reports contain biases and are inaccurate and that given these errors and biases, the amounts reported by the FCC as overstated investment are unsound and cannot be fairly relied upon.

Ernst & Young serves as the Independent Auditor for SBC Communications Inc. and its telephone company subsidiaries. We believe it would be inappropriate for Pacific Bell, Nevada Bell, and Southwestern Bell Telephone Companies to make any financial adjustments based on the FCC's audit reports.

Very truly yours,

A handwritten signature in cursive script that reads 'Ernst & Young LLP'.